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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/056,653 | 01/25/2002 | Martin Franz | YOR9-2001-0738 US1 (8728- | 9856 |
| 7590 06/02/2005 | | | EXAMINER | |
| F. CHAU & ASSOCIATES, LLP Suite 501 1900 Hempstead Turnpike East Meadow, NY 11554 | | | BETIT, JACOB F | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2164 | |

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,653

Applicant(s)

FRANZ ET AL.

Examiner

Jacob F. Betit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 13-15 and 23-33 is/are rejected.
- 7) ☒ Claim(s) 4-12 and 16-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. In response to communications filed on 17-March-2005, claims 1, 4-7, 13, 16-18, and 26-28, are amended per applicant's request. Claims 1-33 are presently pending in the application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 13-14, 23-24, 26, 28, and 30-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Spencer (U.S. patent No. 5,915,249).

As to claim 1, Spencer teaches a method for compressing an index file in an information retrieval system that retrieves information from a plurality of documents, each of the plurality of documents having features occurring therein, the method comprising the step of:

representing occurrence frequencies of the features in the plurality of documents in a compressed format in the index file, wherein the compressed format comprises a plurality of bin identifiers for a plurality of bins over which the occurrence frequencies are categorized (see column 9, lines 25-51, where "bins" are read on "tuples", and each tuple is categorized by its term frequency according to the amount of times the term appears in the document).

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As to claim 2, Spencer teaches wherein the features are textual (see column 9, lines 25-51).

As to claim 13, Spencer teaches an apparatus for compressing an index file in an information retrieval system that retrieves information from a plurality of documents, each of the plurality of documents having features occurring therein, the apparatus comprising:

a compression device for representing occurrence frequencies of the features in the plurality of documents in a compressed format in the index file, wherein the compressed format comprises a plurality of bin identifiers for a plurality of bins over which the occurrence frequencies are categorized (see column 9, lines 25-51, where “bins” are read on “tuples”, and each tuple is categorized by its term frequency according to the amount of times the term appears in the document).

As to claim 14, Spencer teaches wherein the features are textual (see column 9, lines 25-51).

As to claim 23, Spencer teaches method for compressing an index file in an information retrieval system that retrieves information from a plurality of documents, each of the plurality of documents having features occurring therein, each of the features having parameters corresponding thereto, the method comprising the step of:

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mapping parameter values corresponding to the parameters of the features into a plurality of bins (see column 9, lines 25-51, where “parameter values” is read on document identifier which is mapped to the document); and

storing bin identifiers in the index file, each of the bin identifiers identifying a bin to which is assigned at least one individual parameter value corresponding to at least one individual parameter (see figure 3a).

As to claim 24, Spencer teaches wherein the features are textual (see column 9, lines 25-51).

As to claim 26, Spencer teaches further comprising the step of establishing each of assigning a range of parameter values to each one of the bins (see column 9, lines 25-51, where each interval is one number that includes one document).

As to claim 28, Spencer teaches wherein assigning comprises assigning a different range of parameter values, such that the different range represented by each of the plurality of bins contains a substantially same number of the parameter values (see column 9, lines 25-51).

As to claim 30, Spencer teaches wherein said mapping step respectively maps only a single parameter and a corresponding parameter value into each of the plurality of bins (see column 9, lines 25-51), the method further comprises the step of scoring at least one of the plurality of documents with respect to a query, and said scoring step comprises the step of

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computing a parameter value for a given one of the plurality of bins based on the single parameter and corresponding parameter value mapped thereto (see column 12, line 50 through column 13 line 2).

As to claim 31, Spencer teaches further comprising the step of establishing bin boundaries for the plurality of bins based on a methodology employed to score the plurality of documents with respect to queries, the bin boundaries defining intervals within which the parameter values fall (see column 9, lines 25-51).

As to claim 32, Spencer teaches further comprising the steps of:
receiving a query having at least one parameter (see column 12, lines 6-24); and
computing a relevance score for at least one of the plurality of documents with respect to the query, based on the bin identifiers (see column 12, line 50 through column 13, line 2).

As to claim 33, Spencer teaches wherein the method is implemented by a program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform said method steps (see abstract).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 15, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer (U.S. patent No. 5,915,249) in view of Lee (U.S. patent No. 6,704,725 B1).

As to claims 3 and 15, Spencer does not teach wherein the features are non-textual.

Lee teaches wherein the features are non-textual (see column 3, lines 1-32).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Spencer by the teachings of Lee because wherein the features are non-textual would allow the user to search multimedia data (see Lee, abstract).

As to claim 25, Spencer does not teach wherein the features are non-textual.

Lee teaches wherein the features are non-textual (see column 3, lines 1-32).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Spencer by the teachings of Lee because wherein the features are non-textual would allow the user to search multimedia data (see Lee, abstract).

6. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer (U.S. patent No. 5,915,249)

As to claim 27, Spencer does not teach wherein the step of mapping results in one of the bins being empty.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Spencer to include wherein the step of mapping results in

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one of the bins being empty because this would allow documents to be added to the search at a later time.

7. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer (U.S. patent No. 5,915,249) in view of Scott et al. (U.S. patent application publication No. 2002/0049760 A1).

As to claim 29, Spencer teaches the method further comprises the step of scoring at least one of the plurality of documents with respect to a query, and said scoring step comprises the step of computing a parameter value for a given one of the plurality of bins as a weighted average of the parameter values contained within the given one of the plurality of bins (see column 12, line 50 through column 13 line 2).

Spencer does not teach wherein said mapping step respectively maps more than a single parameter and a corresponding parameter value into each of the plurality of bins.

Scott et al. teaches wherein said mapping step respectively maps more than a single parameter and a corresponding parameter value into each of the plurality of bins (see paragraph 0027).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Spencer by the teachings of Scott et al. because wherein said mapping step respectively maps more than a single parameter and a corresponding parameter value into each of the plurality of bins would allow a user to retrieve a desired file from a network and have the best sources automatically chosen based on the chosen ID (see paragraph 0027).

Allowable Subject Matter

8. Claims 4-12, and 16-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments filed 17-March-2005 have been fully considered but they are not persuasive.

In response to the applicant's arguments that "Spencer does not teach *representing occurrence frequencies in a compressed format which includes a plurality of bin identifiers for a plurality of bins of which the occurrence frequencies are categorized*", the arguments have been fully considered but are not deemed persuasive. Spencer teaches having bins (tuples) each of which is categorized by the document identifier and term frequency. He also teaches using differential compression to reduce memory requirements (see column 9, 25-51).

In response to the applicant's arguments that "Spencer does not teach an index compression where *parameters are mapped into bins and bin identifiers corresponding to bins are stored in the index file*", the arguments have been fully considered but are not deemed

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persuasive. Spenser teaches mapping terms or “parameters” into tuples or “bins”. He then teaches identifying these tuples with document term frequency pairs in the index file (See column 9, lines 25-51).

10. In response to the applicant’s arguments that “Scott does not disclose *computing a parameter value for one of the bins as a weighted average of parameter values*”, the arguments have been fully considered but are not deemed persuasive. Both the present and prior office actions rely on the primary reference Spencer and not Scott et al. for this limitation. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob F. Betit whose telephone number is (571) 272-4075. The examiner can normally be reached on Monday through Friday 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (571) 272-4083. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jfb
19 May 2005



SAM RIMELL
PRIMARY EXAMINER